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Linda Bowling to: Lucita Chin

09/25/2012 04:43 PM

From: Linda Bowling/R8/USEPA/US

To:

Cc: Douglas Minter/R8/USEPA/US@EPA

FYI

Linda M. Bowling
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----- Forwarded by Linda Bowling/R8/USEPA/US on 09/25/2012 04:42 PM -----

From: Linda Bowling/R8/USEPA/US
To: Janie Nelson <janie.nelson@wyo.gov>
Date: 08/31/2012 11:00 AM
Subject:

The rationale for the use of 3,000 mg/l TDS concentration in 40 CFR 146.4(c) is not discussed in EPA's regulations.

Janie it is my understanding that the lower limit in the Aquifer Exemption criteria 40 CFR 146.4 was first identified at 3,000 mg/l, TDS based as a result of discussions and comments received during the proposed and final rulemaking from states and commenters. Headquarters has informed me that the 3,000 mg/l TDS concentration was suggested in the preamble of a UIC rule proposal after an Agency review of information on the drinking water use of aquifers containing high levels of TDS. They found that the use of water containing up to 3,000 mg/l TDS is fairly wide spread. My headquarters contact says that groundwater containing as much as 9,000 mg/l TDS is also currently supplying public water systems.

Suggested References Note: These are references that have been shared with me via my EPA counterparts

- page 48245 of October 1, 1981 Federal Register Notice (Volume 46, #190)
- page 4999, February 3, 1982 Federal Register Notice (Volume 47)
- UIC guidance #34
- 40 CFR 146.4

Janie, I hope that my response helps. Let me know if you would like to discuss further. I am happy to follow this matter further.

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-----Janie Nelson <janie.nelson@wyo.gov> wrote: -----

To: Linda Bowling/R8/USEPA/US@EPA
From: Janie Nelson <janie.nelson@wyo.gov>
Date: 08/22/2012 02:14PM
Subject: Re: Fw: Re: Response to Janie Nelson's question

But, why more than 3,000? Where is 3,000 discussed in the regs? It's not in the definition of a USDW. Was that something congress discussed when they promulgated the Safe Drinking Water Act? I understand what 146.4 (c) means. Reference to it was only to show you the 3,000 as an example.

On Wed, Aug 22, 2012 at 1:16 PM, Linda Bowling <Bowling.Linda@epamail.epa.gov> wrote:

Janie here's our response to your question. Let us know if you would like to discuss this further.

Janie question: Are there any EPA regulations which restrict injection of fluids through a UIC disposal well into a formation with water quality less than 3,000 mg/l, total dissolved solids?

EPA regulations prohibit the injection of fluid via a Class I, II, or III well into *any* USDW regardless of the TDS. See 40 CFR 144.12. In general, we tend to think of USDWs as less than 10,000 mg/l, TDS, but it can be more if someone is using it as drinking water. See 40 CFR 144.3 (definition of USDW). The USDW definition is broad, so EPA also promulgated the aquifer exemption process in order to allow for injection into aquifers that really would not be used as drinking water. So, in order to be able to inject into a Class I, II or III well, the receiving aquifer must fall outside the definition of a USDW or get an aquifer exemption under the 146.4 criteria.

The AE criterion under 146.4 (c) is only available for those receiving USDWs that are greater than 3,000 mg/l, TDS and less than 10,000 and not reasonably expected to supply a PWS. Therefore, that particular criterion cannot be used to justify an AE for water less than 3,000 mg/l, TDS. The WOGCC and the operator will need to consider a different one.

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Act and may be disclosed to third parties.